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**NEWS
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Ground Saucer Watch

"CIVILIAN AERIAL PHENOMENA RESEARCH ORGANIZATION"
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TABLE OF CONTENTS

DIRECTLY SPEAKING	
By William H. Spaulding, Director, GSW/WD	2
A THIRD ALTERNATIVE	
By Val Parks, GSW Consultant	3
WHAT REALLY HAPPENED IN NEW ZEALAND? - PART II	
By Dr. Bruce Maccabee, GSW Consultant	5
MAP OF SIGHTINGS	22
UFO LAWSUIT DOCUMENTS	
Data Retrievals from the Government - Part III	
By J. A. Spaulding, GSW/ED	23
SUGGESTED READING	27

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DIRECTLY SPEAKING

By William H. Spaulding
Director, GSW/WD

We have recently passed the second year of the GSW lawsuit against the CIA. To date, with the legal efforts against this agency and additional FOIA (Freedom of Information Act) the effort has been highly successful. However, the lawsuit has reached a legal impasse, whereas the CIA and other Intelligence Agencies do not want to release any more information. This is well defined in the Affidavit from the CIA earlier this year. However, this does not imply that the case is closed.

In a press release from Peter Gersten (lawyer from the offices of Rothblatt, Rothblatt, Seijas & Paskin) dated October 25, 1979, new data on the lawsuit surfaced and the situation looks better, I offer the following excerpt from the press conference: "Due to the government's withholding of UFO information, CAUS (Citizens Against UFO Secrecy) has been forced to ask the Federal Court for assistance. During the coming week CAUS will be filing two lawsuits in the United States District Court for the District of Columbia: 1) a lawsuit against the National Security Agency to compel it to release its UFO files including the 18 documents it has acknowledged withholding and the Cuban incident report it has refused to either confirm or deny; and 2) a lawsuit against the Air Force to compel it to release its reports of 'unknown tracks'. Furthermore, within thirty days, as part of the GSW (Ground Saucer Watch) lawsuit against the CIA, I will be asking the U.S. District Court in Washington to enjoin the CIA from withholding the 57 documents it refuses to release."

I hope all UFO researchers will join together to help purge the U.S. government of these vital documents once and for all. I am requesting that all GSW members and concerned citizens mail contributions to help offset the high legal costs to support this action.

In finalizing this issue's comments I am including the information on the Cuban incident and suggest it be read with both interest and concern:

In March of 1967, the 6947th Security Squadron based with the Boca Chica Naval Air Station near Key West, Florida recorded this incident. The mission of the 6947th is the monitoring of all Cuban military communications.

Cuban radar installations reported a bogey approaching the Cuban land mass from the north-east. Two MIG-21 interceptors were scrambled when the bogey crossed Cuban air space at an altitude of approximately 10,000 meters and at a speed approaching Mach. The interceptors were directed to the Bogey by Cuban Ground Control Intercept and were guided to within 5 kilometers of the object. The wing leader reported the object was a bright metallic sphere with no visible markings or appendages. After a futile attempt to contact the object for identification, Cuban Air Defense headquarters ordered the wing leader to arm his weapons and destroy the object. The wing leader reported his missiles armed and his radar locked-on. Seconds later the wing man began screaming to the ground controller that the wing leader's aircraft had exploded. After regaining his composure he further reported that there was no smoke or flame, the aircraft had disintegrated. Cuban radar reported the object quickly accelerated and climbed beyond 30,000 meters and at last report was heading south-southeast towards South America.

A spot report was sent to National Security Agency headquarters, which is standard procedure in any case involving

aircraft loss by an enemy country. NSA is required to acknowledge receipt of such a report, however, they didn't and therefore we sent a follow-up report. Within hours we received orders to ship all tapes and pertinent intelligence to the agency and were told to list the incident in the squadron files as aircraft loss due to equipment malfunction.

HOLIDAY GREETINGS

On behalf of the entire GSW Staff we wish all of our dedicated members and fellow researchers a happy holiday season and a prosperous new year. All of your efforts this year have helped to bring the UFO mystery a little closer to being solved.

A THIRD ALTERNATIVE? By Val Parks, GSW Consultant

In all the articles and books I have read about UFOs, two polarized explanations were set forth. UFOs are either cases of mistaken identity, delusions, explainable natural phenomena or hoaxes or they are actually real and in fact, spacecraft from another planet. However, within the past year, two books have been written that question the second possibility.

Jacques Vallee, in his book Messengers of Deception brings out some important observations that are worthy of consideration. Vallee asks if UFOs are real, does the "spacecraft" hypothesis explain to our satisfaction the facts of the UFO phenomenon as we know them today? His answer is absolutely not. The most interesting argument he uses is a statistical study based on approximately 2,000 cases of close encounters. Assuming the UFOs are spacecraft whose occupants are randomly surprised by witnesses wandering onto the scene, Vallee states it is possible to calculate an estimate of total landings. After taking into account three factors; the time of the sighting, the probability that it will be reported, and the place of the event, he arrives at a figure of no fewer than three million landings in two decades! From this Vallee concludes, "either the UFOs select their witnesses, or they are something entirely different from space vehicles. In either case, their appearances are staged"!

Vallee offers two hypothesis which he calls the "Martian Conspiracy" and the "Esoteric Intervention." The latter involves a supposed group or groups that have discovered how to control some physical processes in some manner that we would normally consider "magical" or "occult-like." The first one is a bit more tantalizing. Vallee asks, "If Britain, the United States, and the Soviet Union could jointly plan and carry out worldwide deception in the early forties, could not the same mechanisms be at work now?" This first hypothesis would explain the military silence on UFOs, the infiltration of civilian UFO groups by the persons linked to the intelligence world and also UFO ridicule that may be essential to keep scientific attention away from the scene until the authors of the "manipulation" have achieved their political goals. This is exactly where a second book Alternative 003 by Leslie Watkins fits in.

Alternative 003 is a facinating account of three British journalists who investigated the mysterious disappearance of several scientists and stumbled upon a literally unbelievable international conspiracy. The authors broadcasted their findings in the form of a documentary called Alternative 003 on British TV in June, 1977. According to Leslie Watkins, this documentary is banned in America.

Very briefly, here is what Alternative 003 is about. The author claims the earth's atmosphere is being heated, polluted with carbon dioxide, and will soon be unbreathable. Certain governments know this and are suppressing the true facts and/or implications. Years ago they got together and came up with three alternatives. The first two were unworkable and abandoned, but the third one was implemented. The third alternative, "a bold venture into space, built on revolutionary technology."

One of the stories that comes out early in the book is the crew of Apollo 11 saw and photographed two spacecraft on the lunar surface just after they landed. A significant portion of Alternative 003 relies on an interview with "Apollo moonwalker", Dick Grodin. Grodin said that the Apollo missions were basically PR and in fact we were already colonizing new territory on Mars.

I decided to keep my eyes open for articles and facts that would support or invalidate the theory presented by Watkins and his associates. I happened to be in Washington D.C. at the time so I stopped in the Aviation and Space Museum to check out the mission or missions Dick Grodin was a part of. As you probably know, Dick Grodin was not an Apollo moonwalker nor was he a crew member of any NASA mission. I have no explanation for such an obvious error other than the name was changed for some purpose. However, a day later in the Washington Star, a very supportive article appeared. Dr. J. Murray Mitchell, a senior researcher for the National Oceanic and Atmospheric Administration, was quoted as saying "there is 15 percent more carbon dioxide in the atmosphere than there was 50 years ago and by the first decades of the 21st century, we can expect to see a doubling." The article goes on to say that without untold expenditure, no known technology can reduce the overall amount of carbon dioxide being released.

For what it's worth, a September issue of the National Enquirer ran a full page titled by "Scientists reveal Alien UFOs watched our first astronauts on the Moon." The article corroborated Alternative 003's story.

I really wouldn't put money on any of this being the actual truth, but it is fascinating how it explains some UFO sightings and also how Alternative 003 and Messengers of Deception marry together. Perhaps a fitting ending would be a quote from a recent Houston Chronicle by a former moonwalker, Harrison Schmitt; "We have already moved beyond the moon. On Mars, the farming will be conducted under inflated domes, using irrigation techniques developed right here in New Mexico."

(Mr. Parks has a BSME and works for a large electronics firm in Texas as a Sr. Design Engineer.)

WHAT REALLY HAPPENED IN NEW ZEALAND? - PART II

By Dr. Bruce Maccabee, GSW Consultant

Analysis of the Film: Flight North near Christchurch.

Just before the plane left Christchurch, Crockett changed to a new roll of film: Fujicolor 8425 (as before), Series G. On the series G film Crockett filmed the takeoff at Blenheim, an anomalous light near Christchurch, an anomalous light near Cape Campbell, and the landing at Blenheim, for a total of 148 feet of film. Of this 4518 frames (113 ft.) were shot near Christchurch and 279 frames (7 ft.) show the anomalous light near Cape Campbell. We are concerned here with the 4518 frames that were shot near Christchurch.

The film shot near Christchurch may be divided into several sections as follows. The first sequence starts with the first frame of the anomalous light, which is labelled N-0. This sequence lasts for 530 frames at which point there is a "red" frame indicating that the camera stopped. (Whether or not Crockett stopped the camera before this frame, which would have been shot no less than 53 seconds after frame N-0 since he was now operating the camera at 10 frames/sec., is not known.) The second segment starts at frame 531 and ends at another red frame, N-2363. During the second segment Crockett filmed the object at full zoom with his 100 mm lens and then he zoomed back to wide angle (short focal length-16mm) to show the object and a meter inside the cockpit of the plane, both at the same time. It was during this segment that he got some elliptical and triangular images and a "treble clef" or "lazy eight" image (frame N-1766). The image in frame N-1766 has been used to calculate a lower bound on the brightness of the object. The third segment of the film shot near Christchurch runs from frame N-2364 to frame N-3272. This segment shows a slightly non-circular image with a protruding green dot that comes and goes. The image is very steady compared to most of the images on the Crockett film, and it drifts slowly to the right in a manner which would be consistent with the hypothesis that Crockett held the camera steady and let the object drift by his line of sight. The final segment of this section of the film runs from frame N-3273 to N-4519. This segment begins with images which are rather thin, dim streaks which indicate a great deal of relative camera-object motion. Then this segment contains the sequence which was shot with the 240 mm lens. The 240 mm lens images start off large (about 2 mm in diameter on the film) and they shrink to image diameters around 0.2 - 0.3 mm and then they expand to over a millimeter again. At the same time the image brightnesses start off very low, increase dramatically, and then they end up very dim again. There also appears to be a symmetry inversion in the sense that the image "flips over" as it shrinks and then expands. These effects are all characteristic of going through focus. An experiment with Crockett's camera showed that with the focus ring set at 15 feet objects at infinity would be in focus, whereas with the focusing ring set at infinite focal distance nothing was in focus. All of these factors suggest that Crockett actually went through focus without realizing it. The end of this segment consists of about a minute of film which shows a large, dim image "bouncing" around. The large images are somewhat anomalous because they have roughly parallel jagged lines of light running through them in the horizontal direction. These lines of light move up and down through the circular images. The cameraman described these large circular images at the time of the filming as follows: oval, greyish/white, and having rings of light "going around". This description matches the appearance of the big images quite well.

However, some of the smaller focused images match an earlier description of the object which Crockett gave at the time that he was looking through his (focused) 100 mm lens. He described the object as seen through the camera eyepiece as having a very bright bottom and a sort of transparent sphere on top. At the same time Fogarty stated (on his tape) that the object was so bright that no structure was visible to the naked eye. The ability of Crockett to detect structure was apparently due to the fact that the light which passes through the camera eyepiece to the eye is attenuated by a factor of twenty or more by a beamsplitting prism which directs most of the light to the film plane of the camera. The focused images obtained with the 240 mm lens very clearly show that the object is brighter on the bottom than it is on the top. Horizontal streak images show two adjacent lines of light, with the bottom one brighter (until the lens goes through focus, at which point the image is "flipped over" and the top line becomes brighter). Stationary images have a sort of bell shape with a rounded, bright bottom and a less bright top.

During the trip south Crockett had filmed the objects with his lens wide open (f/1.9 with the 100 mm) and with the camera running at 24 frames/sec. He was not able to get any reading on his built-in light heter, however, so he was not sure that he had enough light to register on the film. In order to assure that he had enough light to film the objects during the trip north, he slowed the camera to 10 frames/sec. The speed reduction is confirmed by the increase in apparent brightness of the cockpit panel images, which were filmed under ambient light (the cockpit lights had been dimmed by the captain so that they would not interfere with visual observations of the objects out the window on the trip south; the ambient lights were dim red lights over the meters). Many of the images obtained on the way north are overexposed, so, in retrospect, it might have been better if Crockett had not changed his camera speed.

The object near Christchurch was first seen as the plane was breaking through a low cloud cover. It appeared to be at the level of or just above the clouds. The captain's first impression was that he was looking at the full moon without seeing any features. This conveys an impression of brightness, "large" angular size (the moon is $\frac{1}{2}$ degree in diameter), and color (yellow-red for the moon on the horizon). The copilot described it as a "squashed orange", which emphasizes the color and the somewhat elliptical shape. The first images on the film are generally thin ellipses of bright yellow-white which are surrounded by red "fuzz". The fuzzy red edges may be due to scattering from clouds surrounding the object and from atmospheric extinction of shorter wavelengths than red as the light travels through a cloudy atmosphere between the object and the plane. At one point, about $6\frac{1}{2}$ minutes into the flight, Fogarty described the light as ".....such a bright light....it's lighting up the clouds around it." By this time in the flight the plane would have been several thousand feet above the clouds (cloud tops about 2500 ft), so the line of sight from the plane to the object would not have been through the clouds, and there couldn't have been the same amount of atmospheric extinction of colors other than the red. The film shot about six minutes into the flight does not show the same sort of red fuzz that the initial 20 seconds shows around the bright central area.

Fogarty's first description of the object is that it was like a "very, very bright star". He also stated that there was another less bright light below it. Grant also mentioned seeing a light below the main light

which he interpreted as being a reflection in the ocean. Guard also referred to a reflection in the ocean. However, the low light may also have been a reflection in the cloud layer. Although the atmosphere was clear above the clouds, and although the clouds were broken over the land, it is possible that there was a rather uniform layer over the sea, at a low altitude. Fogarty's first description was given (on tape) about three minutes out of Christchurch. During the statement that he made about 6½ minutes out of Christchurch, part of which was quoted above, he stated that "... those two lights appear to be moving with us. They're still of the starboard wing. The brighter light is still up above the other and has moved a little further ahead of the other... much brighter than any of the other stars in the sky... now it's dimmed... it's gone! Back again! It appears to be going behind a cloud... I can't quite make out whether in fact it is going behind a cloud or whether in fact the light is just dimming." In the previous statement I have underlined "a little further ahead" since this portion of his statement seems to rule out ocean reflection as accounting for the lower light. An ocean reflection would always remain directly below the bright source, whereas a reflection in a cloud that was below and to the right of the object would not be directly beneath the object. I envision a lower cloud layer which was directly beneath the object until the object reached the (northeastern) edge of the layer, at which point the reflection would have appeared to stand still (at the edge of the cloud) while the object itself moved on (or the line of sight to the object "moved on"). Fogarty's description of the object fading out and then coming back as if it had gone behind a cloud would be consistent with the hypothesis that there were clouds above the ocean. The film images also fade in and out. However, I have not detected a dim light below the bright light. This may have been because the lower light was below the field of view of the lens ($\pm 2^\circ$ about the center at 100 mm focal length), which I don't think likely, or, more probably, the lower light was so much dimmer that it did not register on the film. The reason that I don't think the dim light was out of the field of view of the camera is that the radar distance of the object was at that time between 10 and 20 miles, which would make the angle between the bright source and the ocean surface less than ($\arctan(3000 \text{ ft}/10 \text{ nautical miles}) =$) 2.8° . In many of the frames the bright image is near the top of the frame, so that a lower image such as a diffuse reflection from the ocean directly below the object (or from a cloud even less than 3000 ft. below the object) should fall within the four degree vertical field of view. On the other hand, a reflection in a thin haze layer or thin cloud above the ocean could be quite dim, depending upon the "optical thickness" of the layer and upon the scattering properties of the layer. If the dim light had been, say, 1000 times less bright than the brighter light it still would have been visible to the eye, but it might have been below the sensitivity of the film to record.

A notable characteristic of the images recorded during the first 300 or so frames of the film, besides the narrow elliptical shape and the bright central area surrounded by reddish fuzz, is that the major axes of the elliptical images (those images which are not smeared by relative motion of the camera and object) are all at roughly the same 45° tilt with respect to horizontal. The tilt is such that the left end appears higher than the right hand end of the thin ellipse.

As time progresses along the film the images become "fatter" and less like thin ellipses. Also, the red fuzz tends to disappear. By the time forty seconds (400 frames) of film time have elapsed the images are fat ellipses

(squashed orange shape) and some are nearly triangular. An example of the fat ellipse type of image is illustrated in Fig. A, which also shows the transmissometer trace for the image. The color is a very bright white or golden yellow. Unfortunately the brightness of the image has saturated the color dyes in the film, so the exact color cannot be determined. As indicated on the sketch of the image the center appears to be somewhat less bright than the outer portion, and in the center the yellow color is thus preserved.

An example of the triangular images is illustrated in Fig. B. The center of this image is brighter than the outer region. The image is also brighter than the image in Fig. A, as indicated by the lower (neutral) density, D.

For about ten seconds starting with frame N-997 the film shows a very small bright image near the center of each frame and at the bottom of each frame is the image of a meter face illuminated by a dull red light. The jiggling motions from frame to frame of the two images in these wide angle (16 mm focal length) shots appear to be identical, which suggests that the object was steady and that the image motion from frame to frame is due to camera motion only. It is not unreasonable to assume that at least a major portion of the rapid image motion is due to camera movement since Crockett held the camera on his shoulder while squatting down, almost kneeling, in order to film through the far right cockpit window. The witnesses who were watching the object did not report any very rapid jiggling motions such as are seen on the film. They did report rather rapid continuous motions suggesting that the object could travel at high speed under its own power, however. Fig. C is a tracing of one of the frames which shows the cockpit meter as well as the bright light. The top view (insert) in the figure illustrates the approximate line of sight to the object. The approximate level of the bottom edge of the window is also illustrated in the figure. An estimate of the depression angle of the line of sight to the object (horizon has a depression angle of zero degrees) yields 50° or more with respect to the tilt angle of the airplane in its climb as projected onto the line of sight. This estimate could be improved by accurate photogrammetric measurements and/or rephotographing the meter from the same position. Fig. D is an illustration of the cockpit showing the locations of the windows and of the meter on the right hand side. It also shows the location of the radar screen.

Although it seems reasonable to assume that all of the rapid image motion from frame to frame is due to camera motion, there is one frame which pushes this assumption to its limit. The path of the image in frame N-1766 is illustrated in Fig. E. The total length of this path on the film plane is about 4.1 mm. Since the Bolex camera has a 160° open sector, the time duration for this image is $(160/360) \times (0.1 \text{ sec.}) = 0.044 \text{ sec.}$ If the motion was totally due to camera wobble, the camera had to move in a very roughly circular motion so that the image went up and down by 0.76° and left to right by about 0.70° during the frame time. Considering the mass of the camera and the rotational inertia, especially with a rather long and heavy lens attached it seems difficult to imagine that the camera would move in this way under normal conditions. However, it might do so if bumped in a certain manner. No other images approach this one for the amount of circular motion. There are some straight line streak images which are about half as long as this one in terms of angular displacement. On the other hand, if the motion is attributed to a sudden excursion of the object itself, at a distance of, say, 10 miles, the path length would correspond to about 2500 ft. or about 57,000 ft/sec (17000 m/sec)

for the velocity. Considering the g forces implicit in doing a loop at 57,000 ft/sec. (estimate 800,000 g's), it seems more reasonable to assume that the streak is due mainly or only to camera motion.

The image in this figure is very interesting regardless of whether the streak was caused by camera or object motion. It is interesting because, despite the length of the streak, the image is very bright over its whole length. Figures F & G illustrate the brightnesses (densities) of the streak at places other than the sides of the loop. The calculation of the streak is based upon known film characteristics, the optical parameters of the camera, and upon the estimated radar distance to the object at the time of frame N-1766. The estimated distances lie in the range 10 to 20 miles (18-37 km), but the distance was probably closer to 20 than to 10 miles. The reason that it was probably closer to 20 miles is that frame N-1766 occurs about three minutes of film time after the object was first filmed. Since Crockett filmed the cockpit during the takeoff it is certain that he was ready to film when the object was first seen. Assuming that he started filming immediately, if he had filmed continuously, frame N-1766 would have occurred 176.6 sec. later, or just about the time that the radar was warming up (Startup turned on the radar set as soon as he saw the object and it required about three minutes to warm up.). However, we know that Crockett stopped filming at least once before N-1766 since there is a red frame at N-530. This means that N-1766 occurred more than three minutes after the object was first seen. Assuming that Crockett did not wait more than a minute or so (during which time he may have readjusted his filming position), frame N-1766 would have occurred 4 minutes or so after the object was first seen. The initial radar distance was about 20 miles, which would suggest that the object was close to 20 miles away when frame N-1766 was obtained. On the other hand, the possibility that the object was as close as 10 miles cannot be ruled out, since the object was on radar for only about 4 minutes (maybe as little as 3 minutes) and when it went off radar the distance was 10 mi. Thus, if Crockett had stopped filming for a total of 3 or 4 minutes between frame N-0 and N-1766, the object could have been at its closest radar distance at the time of N-1766. However, since it was Crockett's intent to get as much film as possible, he probably did not stop filming for more than a minute or two.

Assuming that the object was about 10 miles away (specifically 18 km) its luminous intensity would have been about 250,000 candelas, whereas if it were about 19 miles away the calculation yields over two million candelas. This amount of luminous intensity can be achieved with a spotlight which focuses the radiation from a bright source into a rather narrow beam. However, no commercial source can achieve such a luminosity without focusing. For example, a relatively high efficiency incandescent bulb that uses 10,000 watts (the largest type available) radiates about 330,000 lumens into 4π steradians for a luminous intensity, lumens/steradian, of 26,000 candelas. However, if this amount of luminous flux were concentrated into a beam about 70° wide (1.13 steradians), the luminous intensity would be about 300,000 candelas, a value comparable with the luminosity of the object. A calculation of the brightness of the object shows that it is comparable with the brightness of the full moon when the moon is about 10° above the horizon. (At higher angular altitudes the atmospheric extinction is less and the moon appears brighter.)

One suggested explanation for the length of the streak and for its brightness is that the camera shutter momentarily stopped rotating. However,

when the shutter stops rotating the whole frame receives illumination and gradually becomes exposed. This effect results in the "red" frames referred to previously. There is no indication that the unexposed film surrounding the bright image in frame N-1766 is any more exposed than the film surrounding the images in the preceding and following frames. Moreover, the path of the images preceding and following N-1766 seems to be continuous with the streak in N-1766, as illustrated in Fig. H. If the camera had stopped with the shutter open one would expect that there would not be a continuous path such as the one indicated by the arrows in the Figure. It is interesting to note that the image motion virtually stopped during the two frames after N-1766.

Frame N-1768 contains an elliptical image which does not appear to be smeared, since the preceding and following frames have images which are in almost exactly the same location within their respective frames (see, e.g. Fig. H). The elliptical image is overexposed in its central region, as indicated by the transmissometer scan in Fig. I. The central region may have been too small for the aperture of the scanning transmissometer to resolve. The shape of the image is very similar to the shape of the elliptical image in Fig. J which was obtained when the plane was flying south. The main difference between these images is the color, with the image in Fig. J being noticeably "bluer".

A further indication of normal image motion from frame to frame and during a frame is illustrated by Fig. K which shows the successive frame positions of twenty four images (one is, however, slightly off the figure, although it was within the camera frame). Despite the rather large amount of motion depicted in Figs. H & K, occasionally the image motion was quite small. One particular sequence of frames is notable for the alternate periods of "steadiness" and rapid motion. This sequence begins with frame N-2364 and lasts for 909 frames. During that time the image is basically round with a small green protrusion that comes and goes. The image repeatedly goes through a cycle of drifting slowly to the right and then moving rapidly to the left in a manner consistent with the hypothesis that Crockett held the camera steady for short periods of time and let the object drift through his field of view. Fig. L illustrates a tracing of the image when the green protrusion is apparent. When the protrusion is not apparent the image is nearly perfectly round. Fig. M is a graph of the horizontal position of the image as a function of frame number or time. One notes that the position repeatedly drifts slowly to the right (up on the figure) and then it is "pulled" rapidly back to the left.

After the "steady drift" sequence there are 412 frames that show rather weak thin streak images. It is not known whether or not this section was taken before or after Crockett changed to the 240 mm lens. However, by frame N-3684 Crockett had the 240 mm lens in use, although it was out of focus. Crockett stated that he did not film during the turn to the right but that some time after that turn (a minute or so?) he began to film. He claims that he got his "best footage" during the turn left as the plane regained its original track to Kaikoura East or as the object apparently "drifted" behind the plane to the right. There is some conflict here between the various recollections of the events by the various witnesses. However, it is clear that Crockett shot at least 835 frames (1.4 minutes) of film with his 240 mm lens. Most of these frames show images which are large (1.5 mm or so in diameter). However, about a hundred frames have small, bright images, most of which are streaks of light. From the sizes

of the images that occur in progression through this section of film, it appears that the lens was at first out of focus and that Crockett went through focus and 'out the other side'. The images start off large and round with bright streaks running through them but very quickly start to shrink. The large images are quite dull, but as the images shrink the brightness increases. By frame 3800 or so the images are only several tenths of a millimeter in size. They remain small for about 100 frames and then they start to increase noticeably in size so that by about frame N-4000 the image is again large and dim with primarily horizontal streaks of light going through them. The large image persists to the end of this sequence. Besides the shrinkage and then expansion of the image size and the accompanying increase and the decrease in image brightness, there is also a symmetry inversion (the image appears to flip over and also undergo a left-right shift), although this inversion is not as obvious as the changes in image size and brightness. These three general variations in the nature of the image are consistent with the hypothesis that the lens went through focus. When in New Zealand, I found that Crockett's 240 mm lens was indeed out of adjustment. Objects at "infinity" focused when the lens focus ring read 15', and with the focus ring at infinity nothing was in focus. The misadjustment was due to a slippage in the mount which held the lens on the camera. The slippage may have occurred when the lenses were changed on the plane, since the change was made under stressful conditions by the light of a flashlight. It thus seems that Crockett mounted the lens, turned it to full zoom, and then proceeded to sight through the camera eyepiece and film while adjusting the focus. He apparently turned the focus ring to infinity and in doing so went through focus without realizing it. Since the bright streaks through the round image are quite "sharp" he apparently thought he had the object in focus. These large images agree quite well with Crockett's description made on the plane at the time that this section of film was obtained.

The only interesting thing about the defocused images is the existence of the horizontal streaks. Why they should exist has not been satisfactorily explained. One would expect a defocused image of a bright source to be mainly round and uniformly bright. Perhaps window scratches affected the brightness distribution, although the next question would then be, "why are the streaks only, or mainly, horizontal?"

The focused images, even those that are streaked, are of interest because they prove that the bright source has a brightness structure which is comparable to that described by Crockett while he was looking through his (correctly focused) 100 mm lens before the plane turned to the right. Fig. N illustrates the shape and densitometric traces through one of the stationary images. Note that the image density of the bottom is 0.17. The color of the bottom of the image is "pure" white, indicating saturation of all the emulsion layers. The top portion of the image is bright, pale yellow with a higher density (lower brightness) of about 0.21. This "double brightness level" structure is evident in many of the streaked images as well, as illustrated in Fig. O, which is the longest straight streak on the film. Note that this streak consists of two adjacent bright lines with the lower line dimmer than the upper. Previous streaks have the upper line dimmer than the lower, as would happen if the image in Fig. N were slid sideways. Thus it appears that the symmetry inversion (image flipped over) had already taken place by the time frame N-3896 was obtained (Fig. P) whereas it had not yet occurred when N-3810 was obtained (Fig. N).

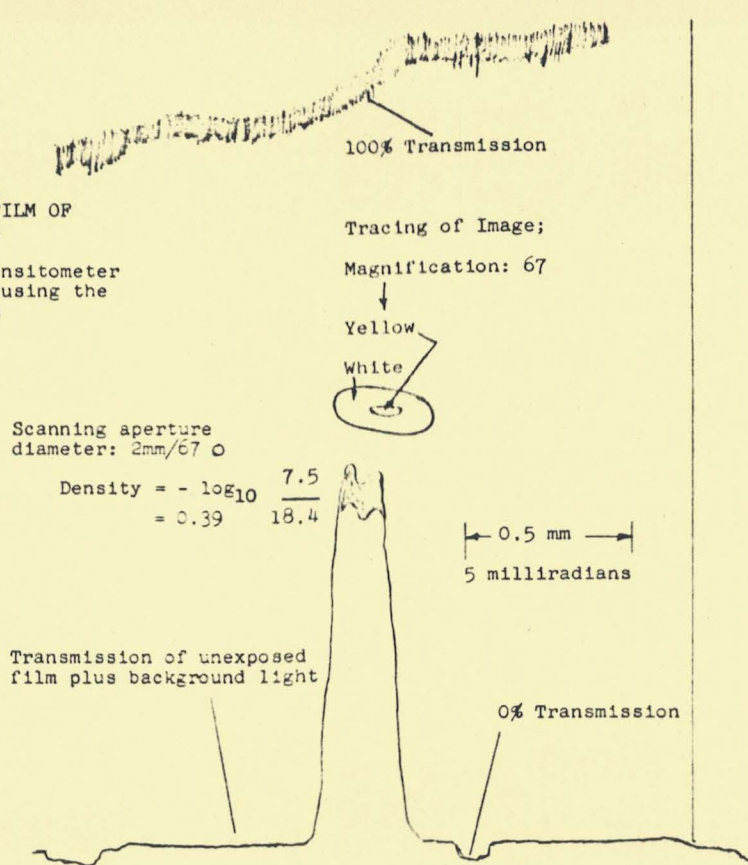
The brightness structure of the image in Fig. N can be compared with the sketch drawn later during the day of the sighting by Crockett, illustrated in Fig. P. Also in that figure are, for comparison, Crockett's drawing of the large defocused image and a tracing of one of the images.

The image in Fig. N is compared with the preceding and following images in Fig. Q. Fig. Q illustrates that the images in frames N-3805 and N-3806 are very similar to the one in frame N-3810, which is the subject of Fig. N. Note that from N-3788 onwards the images shrink, consistent with the hypothesis that the lens was approaching focus as these images were obtained. Frame N-3813 is also similar to 3810, except that image appears to have slid sideways slightly so that the image is about twice as wide as it should be. All of the images from N-3797 through 3813 are noticeably less bright in their upper areas.

The images are quite large up through 3813, and then the image becomes small and nearly round and then it disappears for two frames and reappears as illustrated in Fig. Q. (Frames N-3815 and 3816 have no image that is noticeable to the naked eye.) This disappearance could possibly have been caused by a bar between airplane windows if Crockett had been panning the camera at the time. However, shrinkage of the image size would not normally result from a partial blockage of the lens. The image should stay the same size and shape and merely grow dimmer as less light reaches the film plane. Thus it may be that the shrinkage, disappearance, and subsequent reappearance of the image may have resulted from some change in brightness and angular size of the bright source in a space of several tenths of a second.

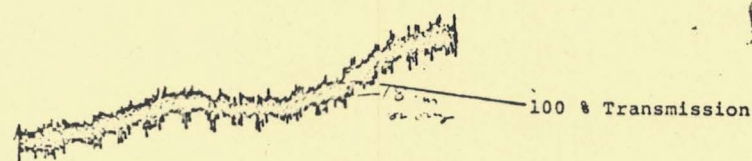
Further analysis of the images attained near Christchurch will be published when they become available.

Figure A
 NEW ZEALAND FILM OF
 DEC. 31, 1978
 Projection Densitometer
 Measurements using the
 Original Film
 FRAME N-432



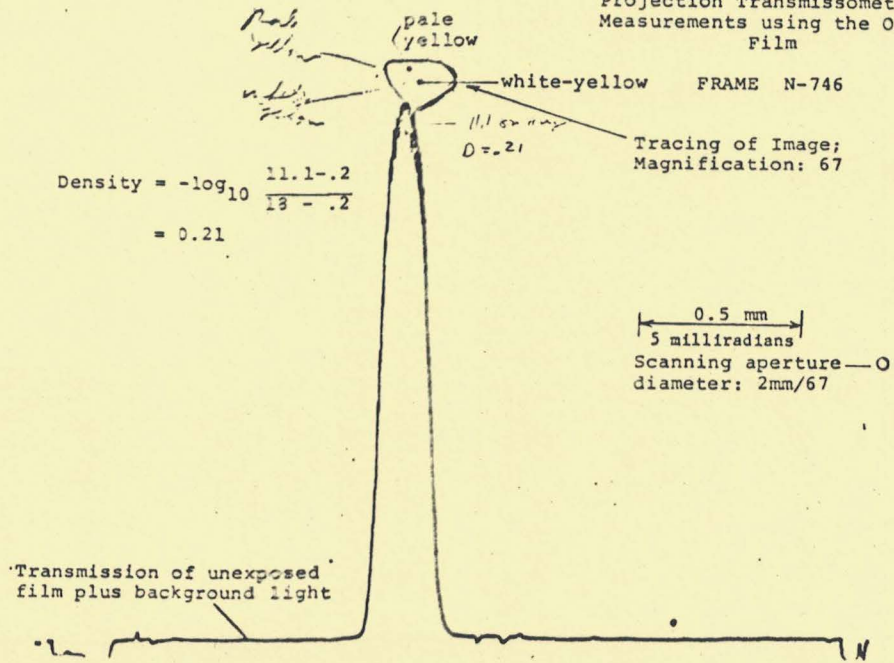
about 7/16N

1/8 film
 2nd roll



B

Figure B
 NEW ZEALAND FILM OF DEC. 31, 1978
 Projection Transmissometer
 Measurements using the Original
 Film



The approximate location of the lower:
edge of the window.

Figure C
NEW ZEALAND FILM OF DEC. 31, 1978

Tracing of a frame which shows the
bright object and a meter that is
below the far right cockpit
window.

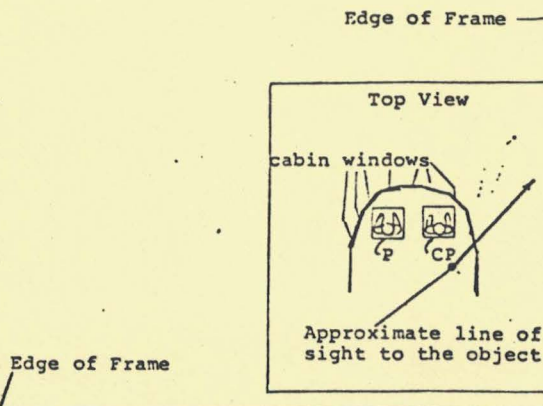


Figure D

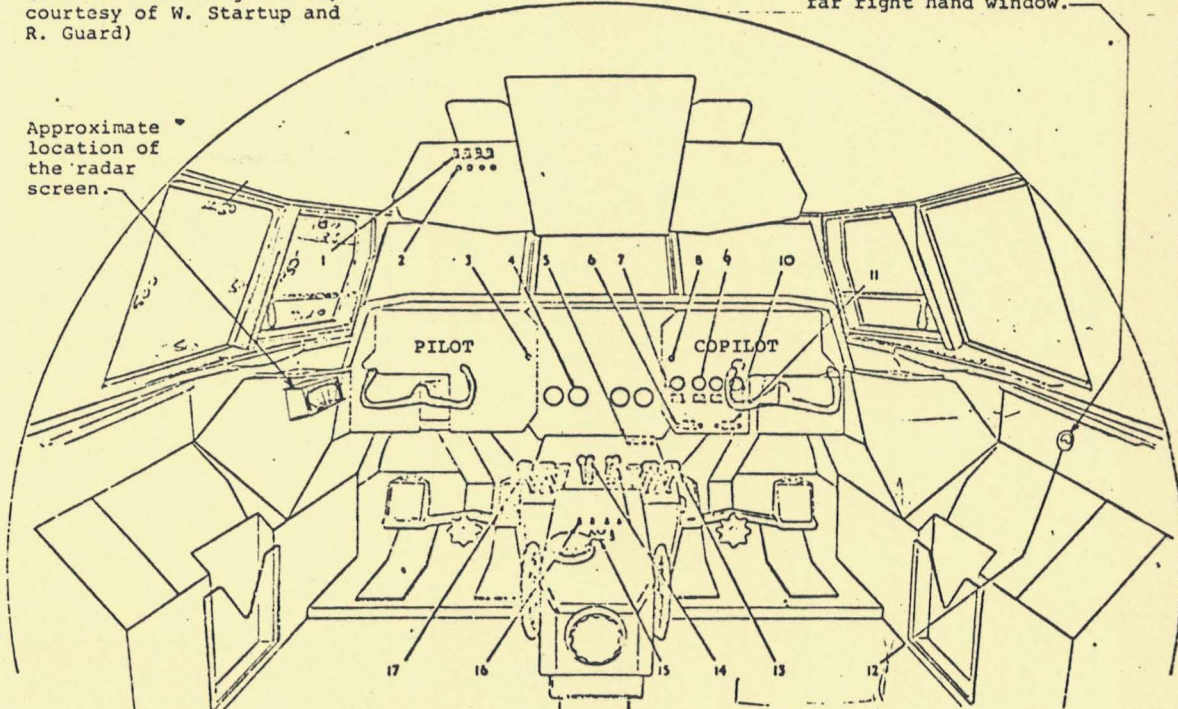
NEW ZEALAND UFO SIGHTING DEC. 31, 1978

Cockpit of Argosy Freighter Aircraft

(from the training manual,
courtesy of W. Startup and
R. Guard)

The meter seen in the
Crockett film is below the
far right hand window.

Approximate
location of
the radar
screen.



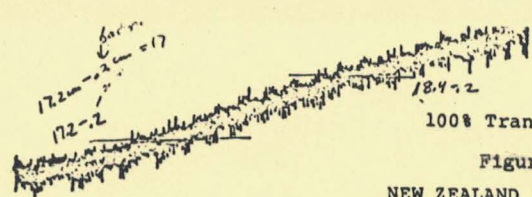
- 1 FUEL FILTER DE ICING SWITCHES (FOUR)
- 2 FUEL FILTER CLOGGED WARNING LIGHTS (FOUR)
- 3 ALERT WARNING LAMP
- 4 FUEL ALARMING
- 5 FUEL ALARMING RESET SWITCHES (FOUR)
- 6 FUEL DELIVERY FAILURE WARNING LIGHTS (FOUR)
- 7 FUEL CONTENTS G3 SWITCH

- 8 ALERT WARNING LAMP
 - 9 FUEL TANK CONTENTS INDICATORS (FOUR)
 - 10 LOW PRESSURE FUEL PUMP SWITCHES (EIGHT)
 - 11 FUEL PUMP-STOP SWITCHES (FOUR)
 - 12 FUEL SYSTEM
- Fuel system instruments and controls

- 13 TEST AMPHETER
- 14 ENGINE THROTTLE LEVERS
- 15 HIGH PRESSURE FUEL COCK LEVERS (FOUR)
- 16 FUEL TRIM ACTUATOR SWITCHES (FOUR)
- 17 LOW PRESSURE FUEL COCK SWITCHES (FOUR)
- 18 ENGINE THROTTLE LEVERS (FOUR)

1756N

1756N



E

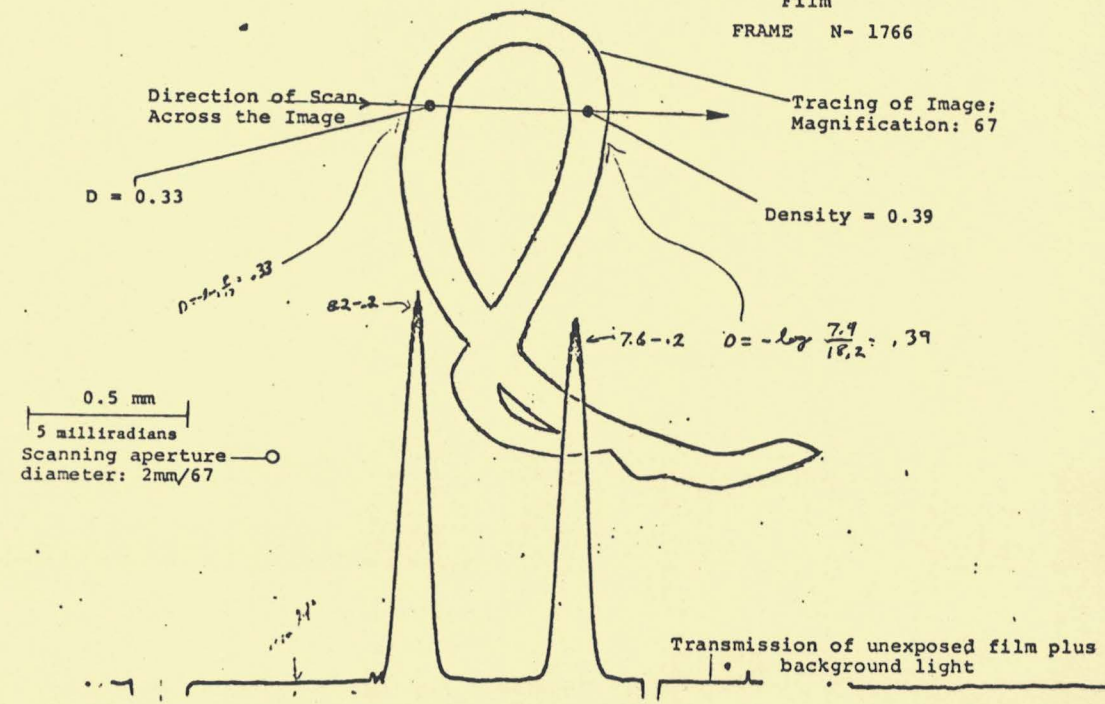
100% Transmission

Figure E

NEW ZEALAND FILM OF DEC. 31, 1978

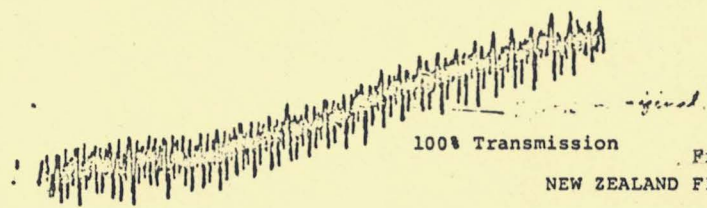
Projection Transmissometer
Measurements using the Original
Film

FRAME N- 1766



F

1756N



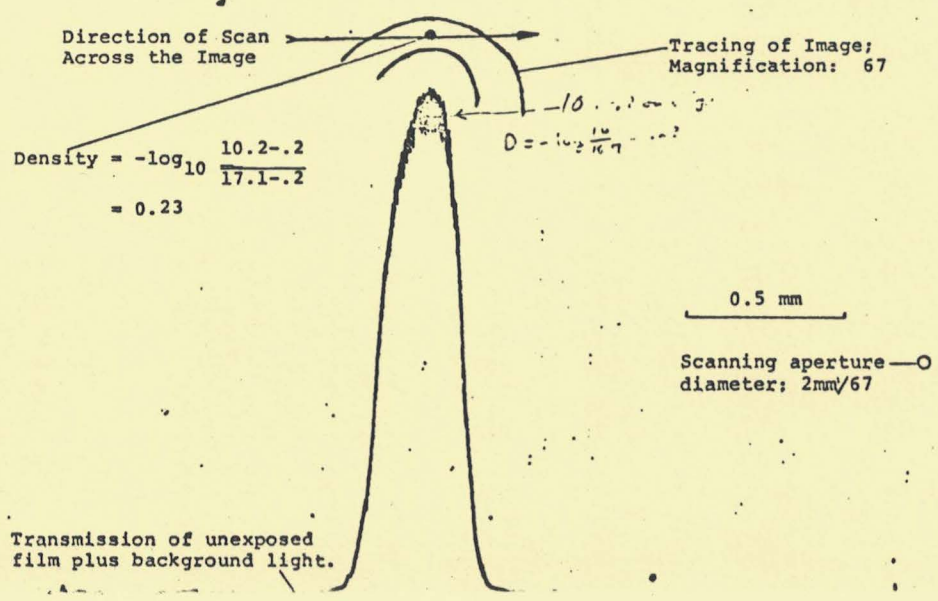
100% Transmission

Figure F

NEW ZEALAND FILM OF DEC. 31, 1978

Projection Transmissometer
Measurements using the Original
Film

FRAME N - 1766



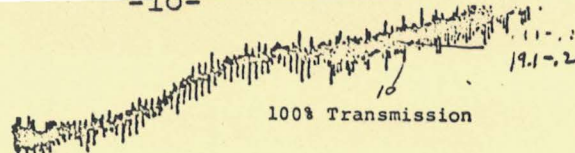


Figure G

NEW ZEALAND FILM OF DEC. 31, 1978

Projection Transmissometer
Measurements using the
Original Film

FRAME N- 1766

Tracing of Image;
Magnification : 67

Direction of Scan
Across the Image

$D = 0.18$

$D = 0.26$

0.5 mm

Scanning aperture—O
diameter: 2mm/67

Transmission of unexposed film
plus background light.

H

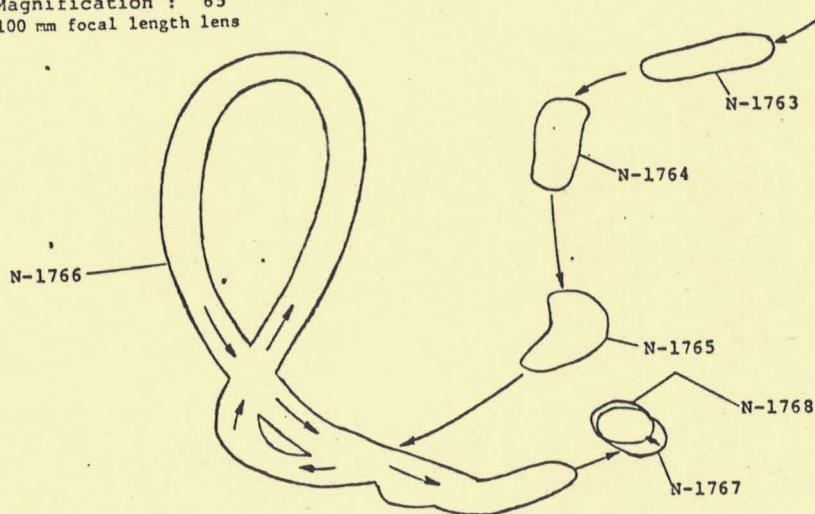
Figure H

NEW ZEALAND FILM OF DEC. 31, 1978

Tracings of Images in Several Successive Frames

Magnification : 65

100 mm focal length lens



All images are bright white or
pale yellow.

1 mm

10 milliradians
(0.58°)

1758N

I

100 % Transmission

NEW ZEALAND FILM OF DEC, 31, 1978

Projection Transmissometer
Measurements using the Original
Film

Figure I

FRAME N-1768

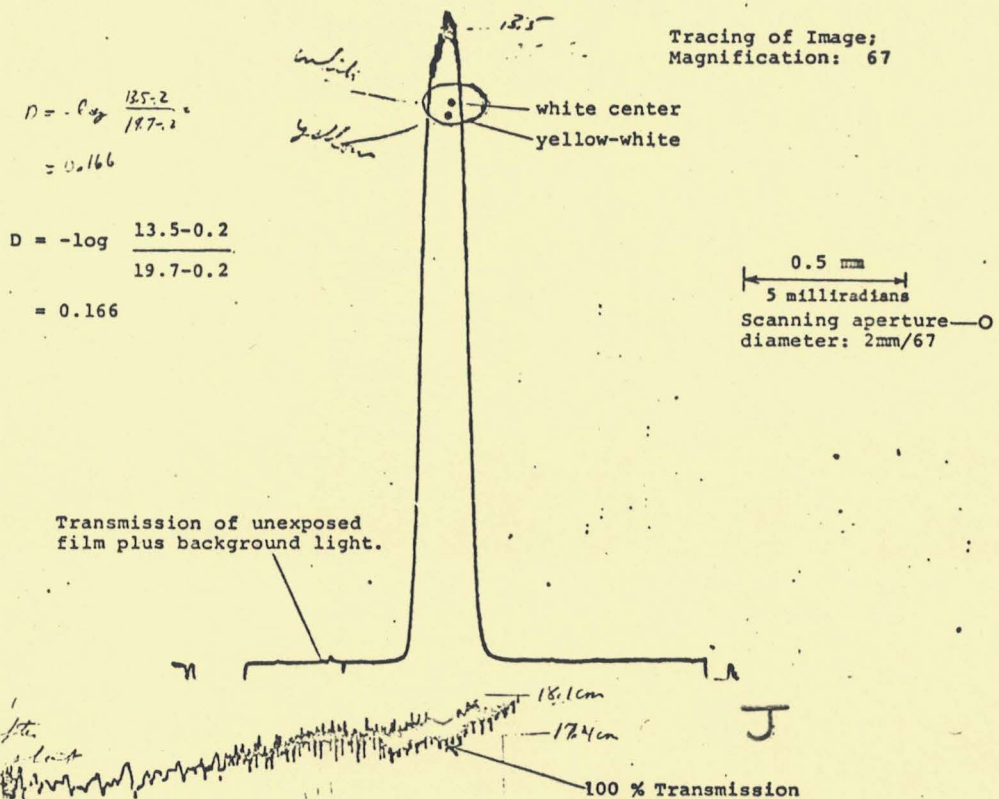
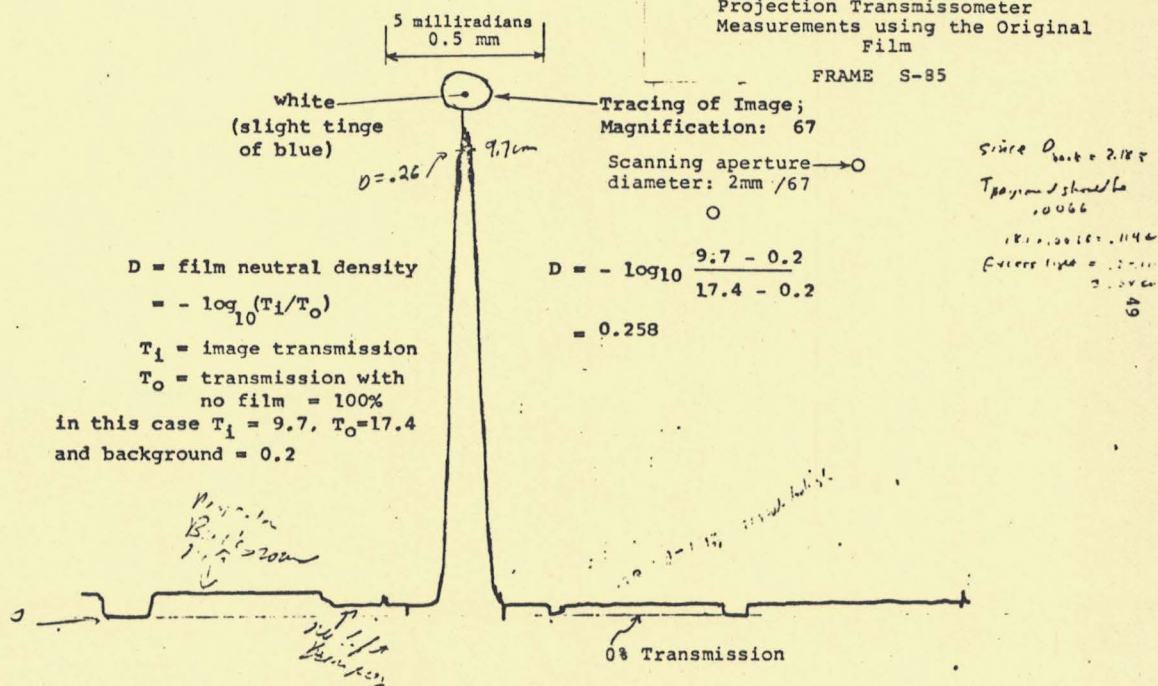


Figure J

NEW ZEALAND FILM OF DEC. 31, 1978

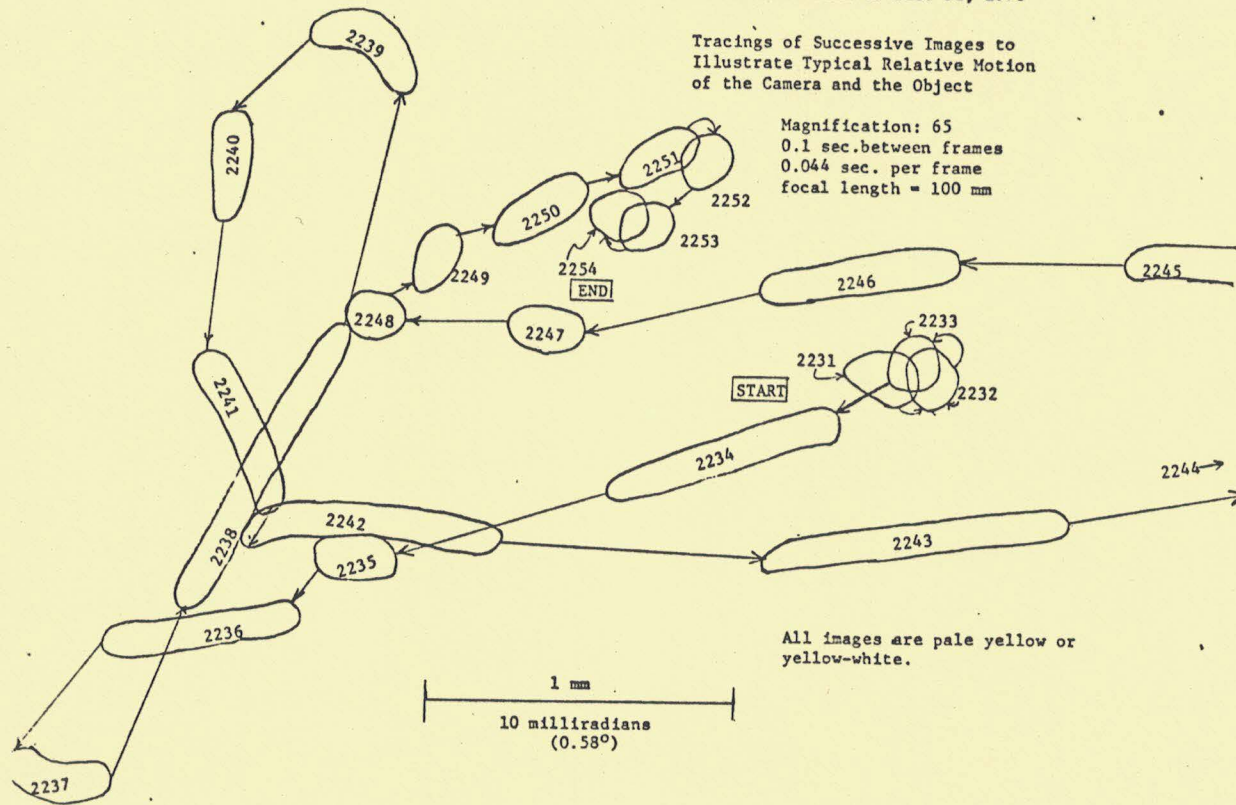
Projection Transmissometer
Measurements using the Original
Film

FRAME S-85



Tracings of Successive Images to
 Illustrate Typical Relative Motion
 of the Camera and the Object

Magnification: 65
 0.1 sec. between frames
 0.044 sec. per frame
 focal length = 100 mm



All images are pale yellow or
 yellow-white.

3042 N

Figure L

NEW ZEALAND FILM OF DEC. 31, 1978

Projection Transmissometer
 Measurements using the Original
 Film

FRAME N-3042

Density = 0.18

white
 or
 very
 pale
 yellow
 White or Pale Yellow

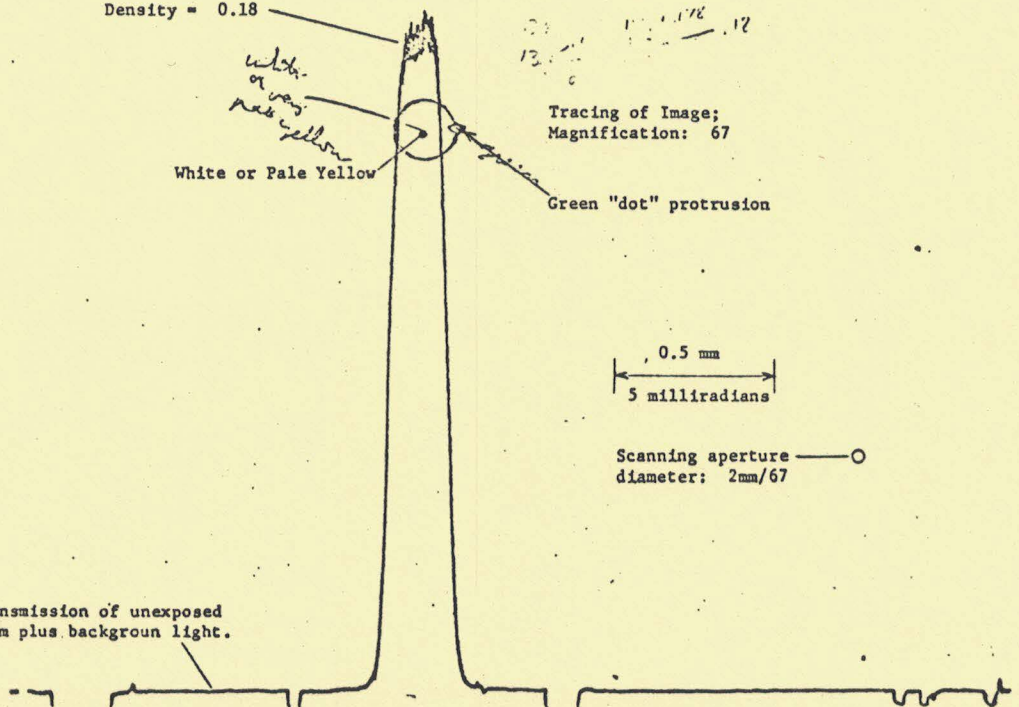
Tracing of Image;
 Magnification: 67

Green "dot" protrusion

0.5 mm
 5 milliradians

Scanning aperture —○
 diameter: 2mm/67

Transmission of unexposed
 film plus background light.



M

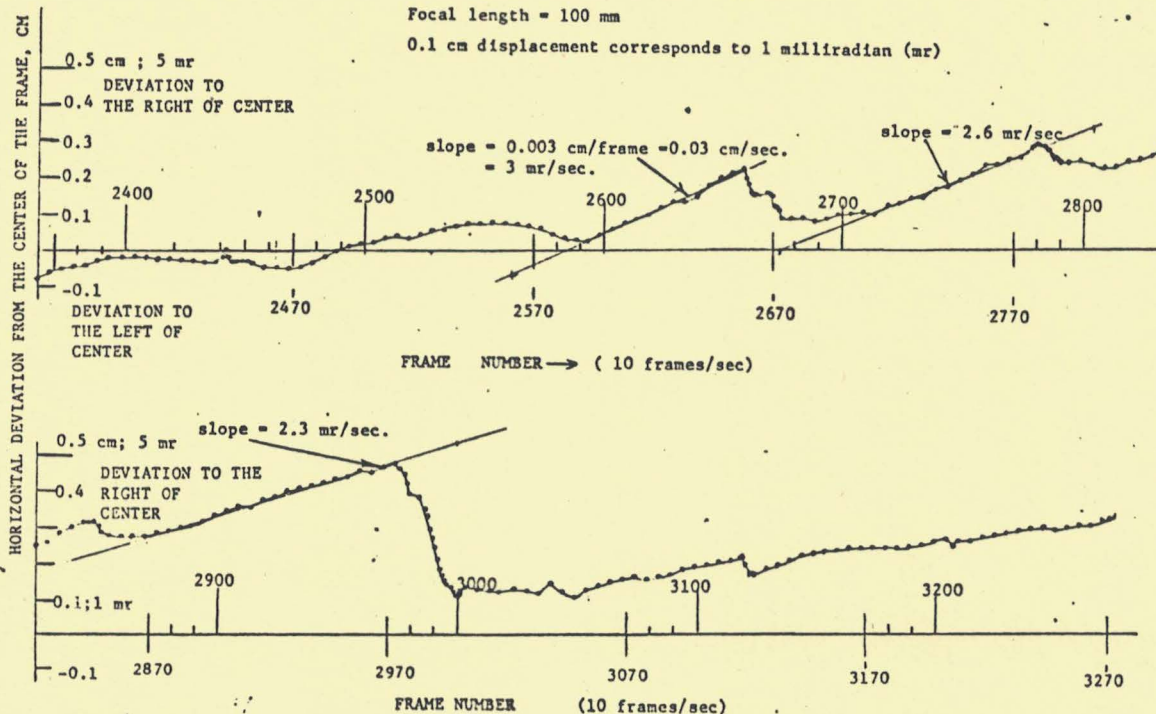
Figure M

NEW ZEALAND FILM OF DEC. 31, 1978

Horizontal Locations of the Centers
of the Images in the "Steady" Sequence

Focal length = 100 mm

0.1 cm displacement corresponds to 1 milliradian (mr)



3810/11

N

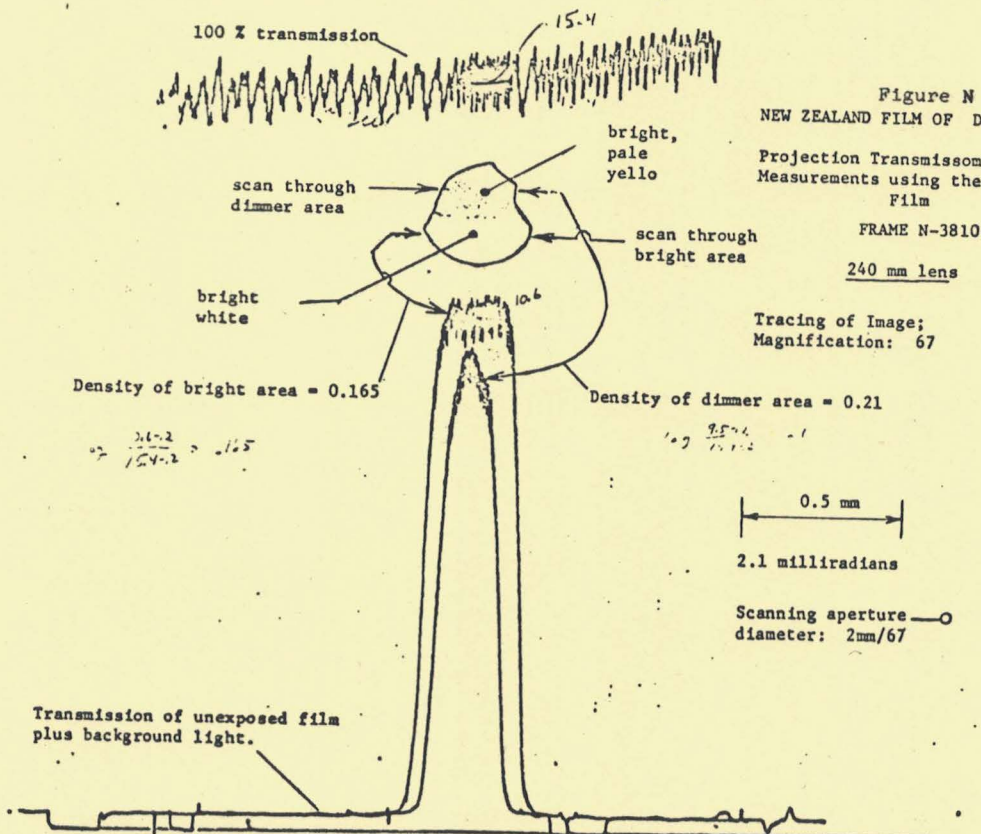
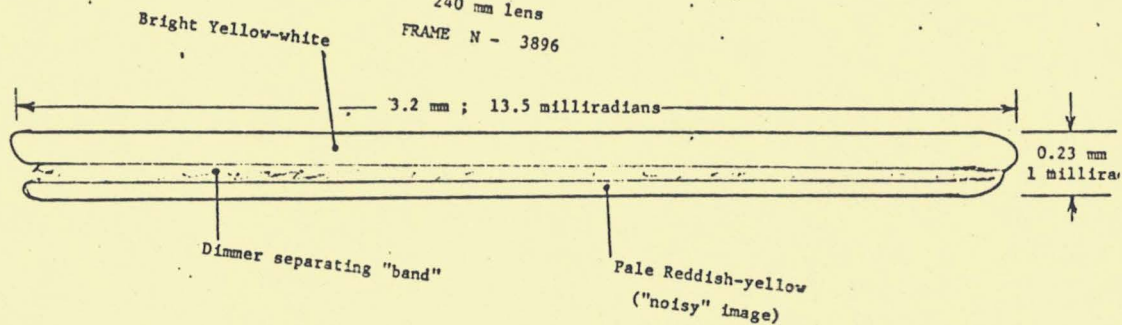


Figure O
NEW ZEALAND FILM OF DEC. 31, 1978

TRACING OF THE IMAGE
MAGNIFICATION: 65

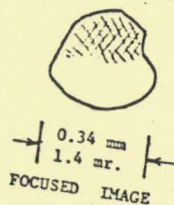
240 mm lens
FRAME N - 3896



NEW ZEALAND FILM OF DEC. 31, 1978
Figure P

Copies of Sketches made by Crockett on
Dec. 31, 1978

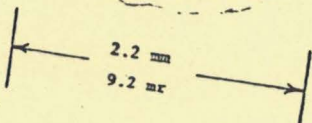
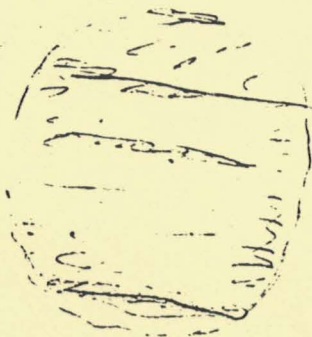
Tracings of Images
Obtained with the 240 mm
Lens:



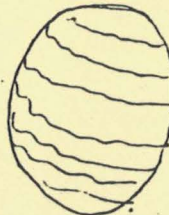
As seen through the 100 mm lens :
(not to scale)



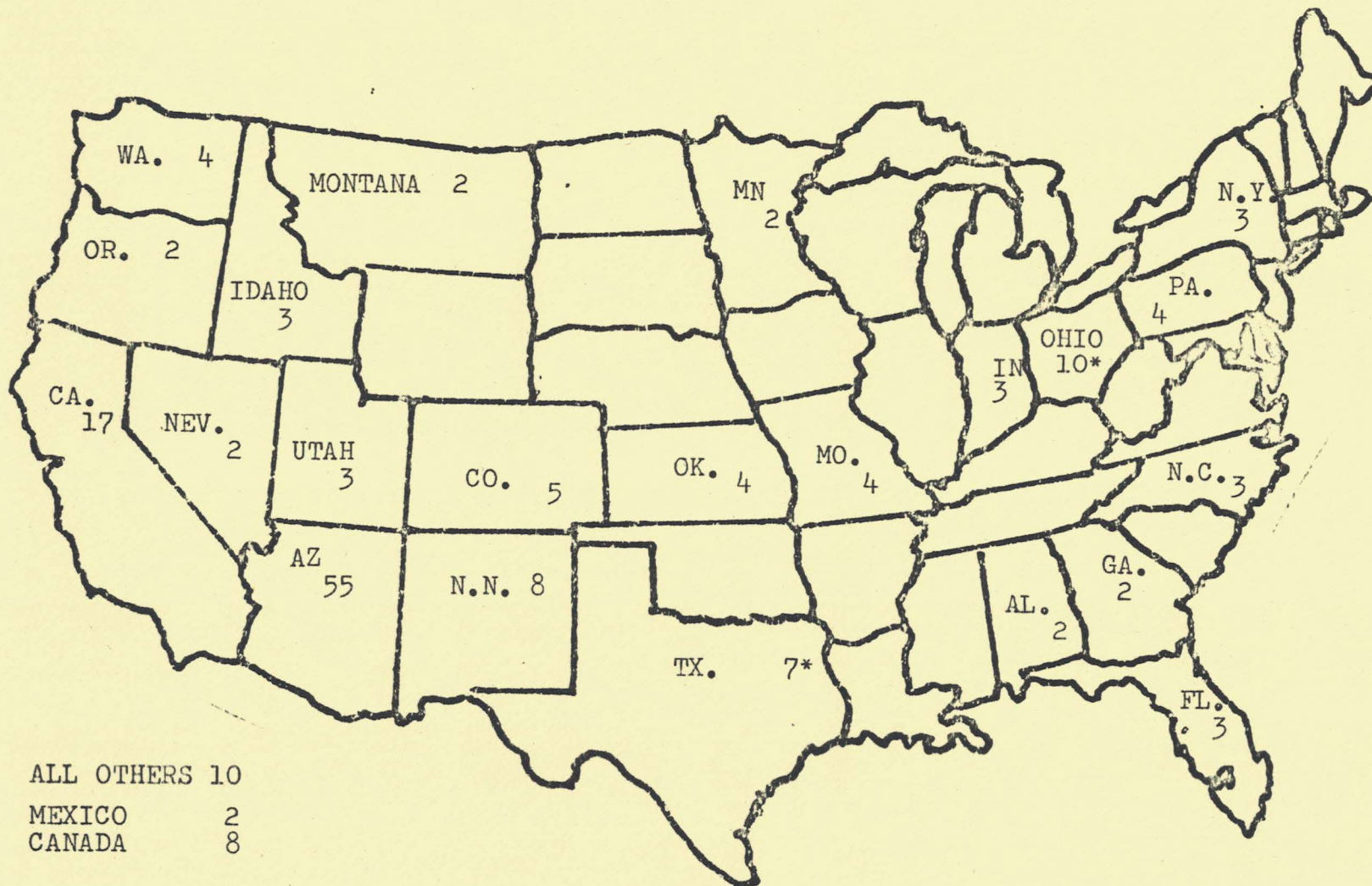
"...it appears to have a brightly
lit bottom and a sort of transparent
sphere on top..." (Fogarty tape)



As seen through the (defocused)
240 mm lens: (not to scale)



"... it's an oval shaped object
with rings of light going around...
... sort of a grey - white color..."
(Fogarty tape)



MAP OF SIGHTINGS

Sightings logged in by GSW-East & West. All sightings do not constitute real "UFO's".

1. 151 called-in reports of UFO's.

2. 28 Reports (hard copy) received.

3. Unknown rate (%) to date - Aug. 1979 through Nov. 1979 13.7 percent

4. AZ numbers do not include the Phoenix based advertisement airplanes.

These sightings cover the period of Aug. 1979 through Nov. 1979 (unknowns - 11 sightings)

* 48 sightings attributed to various bright stars, the planet Venus and other celestial and conventional misinterpretations.

In this installment of the GSW Bulletin updating the UFO lawsuit documents, I am forced, due to limited space, to highlight a single document. However, I think all of our readership will find it interesting. I have chosen the Socorro, NM sighting, a classic in UFO history.

The document segregation is now completed and GSW offers over 500 documents for sale. The price is \$100.00 for the set postpaid in the United States. Individual (smaller) sets of documents are available from GSW at \$10.00. These sets average 40 pages. I think they make interesting reading for all researchers.

UFO LAWSUIT DOCUMENTS

DATA RETRIEVALS FROM THE GOVERNMENT - PART III

By James A. Spaulding
GSW/ED

UFO Sighting, Socorro, New Mexico, 21 Apr 64

Hq USAF SAFOI PB (Mrs. Gaiser)
Wash DC 20330

1. The following is a resume on the unidentified flying object sighted by Mr. Lonnie Zamora, of Socorro, New Mexico on 24 Apr 64, results of the investigation so far, conclusions reached by FTD and courses of action in continuing the investigation.

a. Background Information:

(1) At approximately 1745, 24 Apr 64 an unidentified flying object was observed by Mr. Lonnie Zamora in Socorro, New Mexico. The sighting was reported to Sgt Chavez of the New Mexico State Police. The object sighted by Mr. Zamora had left markings in the ground as well as several burned spots in the area. The area was secured by Sgt. Chavez and the commanding officer, Capt. Holder, of the Stallion Site at White Sands notified. Capt. Holder conducted an initial investigation of the sighting and obtained samples of the charred areas and dirt surrounding the markings left by the UFO.

(2) News media and persons connected with various UFO organizations such as APRO and NICAP received word of the sighting and sent investigators to the scene. Newspaper accounts of the sighting had become much distorted with reports of little men running around and a rocket ship blasting off into space. The account of the sighting carried in the El Defensor & Chieftain, dated Tuesday, 23 April 1964 and the account by UPI representative Charles Richard, carried in the Albuquerque Journal, 27 April 1964, are essentially correct. As a result of wide news coverage and public interest in the sighting, Captain Hector Quintanilla, Project Officer, directed TSgt. David Moody to assist in the investigation for the Air Force. Sgt. Moody contacted Major Conner, the Officer at Kirtland AFB responsible for unidentified flying object investigations, and accompanied him to Socorro. Information obtained during this investigation revealed that the sighting was legitimate and there was no indication that a hoax was being perpetrated. The results of Capt. Holder's investigation were received, interviews with Sgt. Chavez and Lonnie Zamora were conducted. A geiger counter was used to determine if radiation was present in the area of the UFO sighting. The data was collected and no positive conclusion reached. On Tuesday, 23 April 1964, Capt. Quintanilla directed

Doctor J. Allen Hynek to Socorro to obtain additional data. Composite results of the investigation by Capt. Holder, Sgt. Moody, Dr. Hynek and Major Conner indicated that the attached narrative depicts the true circumstances of the sighting.

b. Specific Findings from Efforts to Date:

(1) On the evening of 24 April 1964 Sgt. Chavez of the New Mexico State Police accompanied by Agent Burns of the FBI and Capt. Richard Holder conducted a search of the area surrounding the sighting. There were no automobile tire markings or markings of any sort in the area other than those located at the site of the alleged landing and so noted in Capt. Holder's report.

(2) Radioactivity: Major Conner and Sgt. Moody checked the area for radiation. There was no radioactivity in the area of the sighting.

(3) Helo Activity: A check was made to determine if any helicopter activity was in the area at the approximate time of the sighting. This check was conducted at White Sands by Capt. Holder who talked with the pilots and operational personnel. All helicopters at White Sands were in the hangars at the time of the sighting. Sgt. Moody checked all AFB helicopters at Kirtland AFB and the landing gear did not coincide with the marks on the ground. Helo activity was checked within a radius of 300 miles including Biggs AFB at El Paso with negative results. All military helos including those associated with Project Cloud Cap have been eliminated as a possible cause of the sighting. However, civilian helicopter activity was not completely determined.

(4) Radar Surveillance of the Area: Capt. Holder contacted radar sites at White Sands and Almagordo. He was informed that there was no unidentified activity in the area during the time of the sighting.

(5) Soil Samples: The soil samples obtained at the sighting were given to Dr. J. Allen Hynek by Capt. Holder. They were turned over to Captain Quintanilla who in turn submitted them to ASD for analysis. Laboratory analysis of the soil was completed on 19 May 64. It included spectrographic analysis which revealed that there was no foreign material in the soil samples. Also, no chemicals were detected in the charred or burned soil, which would indicate a type of propellant. There was no significant difference in elemental composition between the different samples.

(6) VTOL and Lunar Modules:

(a) Personnel working on the development of VTOL type aircraft and lunar modules were consulted. VTOL type a/c were not eliminated as a possible cause due to the absence of a blast effect in the area. There are several types of ducted blast devices which would divert the force of the blast outward. However, they were not aware of an operational craft of this nature.

(b) Lunar Module configurations conform not only to the description of the object but also have girder like legs or pods which would produce markings such as those found at Socorro. One known experimental model, constructed by Bell Aircraft Corporation, is located at Edwards AFB.

(7) Additional Witness: The El Defensor and Chieftan of Tuesday 28 Apr 64 carried an article indicating that an unidentified tourist traveling North on US 85 saw the UFO just before it landed. He also observed the police car heading up the hill toward the spot where the UFO landed. If this is true, the UFO not only disappeared in the direction of White Sand's

but also came from that same direction. A telephone call to Mr. Opal Grinder of Whiting Brothers Service Station indicated that he was the source for reporting that an unidentified tourist had observed the unidentified flying object. He verified that the information in the news article was correct.

c. General Conclusions to Date:

(1) Evaluation of the data contained in the various investigative reports confirms that a sighting definitely did occur. The description of the object and flight characteristics are coincident with that expected of a helicopter, VTOL or Lunar Module configuration. Current investigative efforts are being made to establish or identify the specific vehicle which caused the sighting. The following statement by Captain Hector Quintanilla represents a statement which may be released to the press:

"Conclusion: The investigators at Wright-Patterson have not been able to identify or determine what type of vehicle or object Mr. Lonnie Zamora observed on 24 April at Socorro, New Mexico. The object or vehicle displayed flight characteristics well within the state-of-the-art & the sighting cannot be attributed to atmospheric or astronomical phenomena. In this respect, I can categorically state that the vehicle or object observed by Mr. Lonnie Zamora was not an inter-planetary space vehicle visiting the planet Earth. This case is still open and the investigation is still in progress."

d. Continuing Investigative Efforts at Present Include:

(1) The FTD Liaison Officer, Major Mitchell at White Sands, has been requested to determine if a vehicle from a classified project at White Sands could have contributed to the sighting.

(2) A letter has been sent to the FAA requesting any information relative to identification of a firm using the marking observed by Lonnie Zamora.

(3) NASA has been queried regarding the status of the lunar Module Programs. As of this date no reply has been received.

(4) Letters concerning status of the Lunar Module programs have been written to 15 industrial organizations.

(5) Contact with research and development personnel associated with VTOL and Lunar Module Programs is being maintained.

(6) Efforts to locate the unidentified tourist have not been successful, however, this is still a possibility.

FOR THE COMMANDER

Eric T de JONCK _____
Colonel, USAF
Deputy for Technology and Subsystems

1 Atch
Narrative of Sighting

NARRATIVE OF SOCORRO, NEW MEXICO SIGHTING, 24 APRIL 1964

Shortly after 5:30 pm on Friday, 24 April 1964 Sgt Lonnie Zamora of the Socorro Police Department was chasing a speeding auto North on US 85 in the line of duty. While in pursuit he heard a roar and saw flames in an area where a dynamite shack was known to be located. He abandoned chase of the auto and proceeded to where he thought an explosion had occurred. In order to reach this spot he had to travel a little-used road over

several hills and gullies. After two or three efforts to drive his car up a gravel-covered incline he reached a crest where the object was visible. At this point, 800 ft. from the object, he observed what he thought to be a car overturned and standing on its end. There were one or two objects described as coveralls which he assumed to be occupants of the vehicle. He radioed in to police headquarters that he was proceeding to investigate a 10-74 (auto accident). Proceeding up the road to a point about 150 ft. from the gully where the object was, he stopped the car, got out, and headed toward the object. The object was on girder-like legs, white (not chrome) and egg shaped or oval. As he approached the object there were some noises and flame and smoke began to come from the bottom of the vehicle. The noise increased from low pitch to high pitch, was different from that of a jet or helo and not like anything Sgt Zamora had ever heard. The flame was blue like a welders torch, turning to orange or yellow at the ends. Thinking that the object was going to explode he became frightened. The time was approximately 1745 (1½ hours before sunset), the sun was to his back, slightly to the right. He turned, ran back to get behind the police car, bumping his leg and losing his glasses on the way. He crouched down, shielding his eyes with his arm while the noise continued for another 10 seconds. At this time the noise stopped and he looked up. The object had risen to a point about 15-20 ft. above the ground and the flame and smoke had ceased to come from the object. The object had a red marking about 1 ft or maybe 18 inches in height, shaped like a crescent with a vertical arrow and horizontal line underneath. The object hovered in this spot for several seconds and then flew off in a SW direction following the contour of the gully. It cleared the dynamite shack by not more than 3 ft. He watched the object disappear in the distance over a point on Highway 85 about 6 miles from where he was standing. The object took about 3 minutes to travel that far. Disappearance was by fading in the distance and at no time did he observe the object to rise more than 20 ft off the ground.

While proceeding to the location when the object was assumed to be an auto Sgt Zamora was in radio contact with police headquarters. The State Police use the same network and his call was monitored by Sgt Chavez of the New Mexico State Police. Sgt Zamora attempted to direct Sgt Chavez to the location while he was driving toward the object. Sgt Chavez took the wrong road, and was, in fact heading in the opposite direction for part of the time and would not have been in a position to see the object. He arrived at the point where Sgt Zamora was parked about three minutes after the object had disappeared. Sgt Zamora was pale and upset at what he had witnessed. Sgt Chavez was skeptical of the situation and proceeded to where Zamora had observed the object. Here he found the marks and burns. Smoke appeared to be coming from a bush which was burned but no flame or coals were visible. Sgt Chavez broke a limb from the bush and it was cold to the touch. The marks were fresh and no other marks were in the area. Diagonals of the four impressions intersect in a perpendicular and the major distance seems to be approximately 13 ft. Sgt Chavez secured the area and contacted local military authorities. This resulted in the investigation of the sighting.

(End)

SUGGESTED READING

For those UFO researchers who are seriously interested in keeping abreast of the latest developments in the field of UFOlogy, GSW recommends the following publications:

MUFON's UFO JOURNAL
MUFON, INC., 103 Oldtowne Rd.
Sequin, Tx. 78155
\$10.00/yr - Att; Walt Andrus

Retrievals of the Third Kind
(Case study of alledged UFO
occupants in military custody)
By Len Stringfield

JUST CAUSE
PO Box 9743, Arlington, VA 22204
\$10.00/yr (12 issues)

MUFON's Symposium Proceedings
Contact MUFON
1973 thru 1979 Available.

HIGHLIGHTED THIS ISSUE are two UFO publications from CUFOS (Center for UFO Studies), 1609 Sherman Ave., Ste 207, Evanston, Illinois 60201.

The International UFO Reporter (IUR)

IUR is a monthly newsletter about current UFO cases, their immediate investigation, follow-up, and finally, the conclusions reached. It stresses responsible reporting of UFO events, and strictly avoids the undocumented, sensationalized stories generally found in popular press. The editors of IUR hold that the UFO phenomenon is sensational enough in itself without the deliberately sensationalized and often unsubstantiated treatment found in the tabloid and newspaper press.

The IUR is a publication strongly recommended for schools and libraries as well as for its primary audience - the great many people both in this country and abroad who desire to "know the score" about UFO reports, the people who make them, and the patterns they disclose. The IUR also includes articles, book reviews, news and commentary about persons and events.

IUR is endorsed by the Center for UFO Studies as a highly responsible publication covering the current UFO scene. It is available by subscription only from CUFOS at the following rates:

\$12.00/yr (\$20.00 for two years) in the United States.
\$15.00/yr (\$26.00 for two years) in foreign countries.

The Journal of UFO Studies

Published by the Center for UFO Studies, the Journal of UFO Studies is a referenced scientific journal incorporating the most recent work of the professional scientists working on the UFO problem.

It is available from The Journal of UFO Studies, c/o CUFOS at \$3.50/issue.
Editor: Dr. Elaine M. Hendry Editorial Advisor: Dr. J. Allen Hynek



The GSW News Bulletin is published three times annually...April, August, and December. Regular features include "Directly Speaking" by William H. Spaulding, Director, WD., organizational news, Map or Sightings, as well as interesting articles & stories relating to various aspects of UFOlogy.

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